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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,331

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Franciscus Hubertus Maria Stappers

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EXAMINER

FRANK, NOAH S

ART UNIT

PAPER NUMBER

1796

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/567,331	<b>Applicant(s)</b> STAPPERS, FRANCISCUS HUBERTUS MARIA	
	<b>Examiner</b> NOAH FRANK	<b>Art Unit</b> 1796	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 5,6 and 17-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/9/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of claims 1-4 and 7-16 in the reply filed on 2/18/09 is acknowledged.

Claims 5-6 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131

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USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

In the present instance, claim 15 recites the broad recitation below 10 micrometers, and the claim also recites preferably about 3 micrometers which is the narrower statement of the range/limitation.

In the present instance, claim 16 recites the broad recitation up to about 8 wt.%, and the claim also recites preferably up to about 5 wt.%, more preferably up to about 3 wt.% which is the narrower statement of the range/limitation.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Caldwell et al. (US 6,316,535).

Considering Claims 1, 4, 9-10: Caldwell et al. teaches an aqueous system for coating a substrate comprising a first component which has hydroxyl groups and a second component containing isocyanate groups (2:35-45). The system may comprise a filler such as calcium carbonate, titanium dioxide, or zinc oxide (3:10-20). The system has improved cure times as a result of adsorption of the active polymers onto the surface of the filler (3:50-60). Therefore, the filler has been interpreted as a catalyst, as

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it decreases the cure time of the reaction. Additionally, a filler is a solid material in powder form.

In regards to the limitation that a part of the catalyst be in a separate dry sprinkleable powder phase, a filler is a separate phase, regardless of whether it is dispersed in an aqueous system. Additionally, the filler is capable of being sprinkled. Furthermore, as the claim is drawn to a composition, the catalyst must at some point be present in the liquid phase.

Claims 1, 4, 9, 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Honnick (US 6,669,835).

Considering Claims 1, 4, 9, 11-12: Honnick teaches aqueous compositions containing polymerizable components and a water incompatible catalyst sorbed onto an inorganic particulate carrier (Abs). The polymerizable components may be isocyanates and amines or epoxies (cross-linkable by polar reaction) (8:25-35, 60-65). The inorganic particulate carrier may be silica (sand) (5:45-50).

In regards to the limitation that a part of the catalyst be in a separate dry sprinkleable powder phase, the particulate carrier is a separate phase, regardless of whether it is dispersed in an aqueous system. Additionally, the particulate carrier is capable of being sprinkled. Furthermore, as the claim is drawn to a composition, the catalyst must at some point be present in the liquid phase.

Claims 1-3, 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Brindopke et al. (US 5,084,536).

Considering Claims 1-3, 7: Brindopke teaches a lacquer (2:5-10) comprising components A and B (2:15-25) which undergo a Michael reaction (polar reaction) (2:50-60). Component A may comprise trimethylolpropane trisacrylate (12:10-15) which is an electron deficient olefin. The lacquer may comprise a catalyst such as DABCO (Lewis base) or triphenylphosphane (7:25-60). The triphenylphosphane will undergo a reaction with the electron deficient olefin to form a Lewis base).

In regards to the limitation that a part of the catalyst be in a separate dry sprinkleable powder phase, the catalyst is a separate phase, regardless of whether it is dispersed in a liquid system. Additionally, the catalyst is capable of being sprinkled. Furthermore, as the claim is drawn to a composition, the catalyst must at some point be present in the liquid phase.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-13 rejected under 35 U.S.C. 103(a) as being unpatentable over Caldwell et al. (US 6,316,535), as applied to claims 1, 4, 9-10 as set forth above, and further in view of Berg et al. (US 2002/0161135).

Considering Claims 11-13: Caldwell et al. the basic claimed composition as set forth above.

Caldwell does not teach the powder comprising a solid material having one or more activating compounds adsorbed to its surface. However, Berg et al. polyurethane coating compositions (¶0160-161) comprising Tioxide TR92 (¶0118). Tioxide TR92 is a zirconia treated titanium dioxide (¶006 of instant specification). Caldwell and Berg are analogous art because they are from the same field of endeavor, namely aqueous polyurethane coating compositions comprising titanium dioxide. At the time of the invention a person of ordinary skill in the art would have found it obvious to have used Tioxide TR92, as taught by Berg, in the invention of Caldwell, as an equivalent alternative titanium dioxide.

Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honnick (US 6,669,835), as applied to claims 1, 4, 9, 11-12 as set forth above, and further in view of Ashley et al. (US 5,039,718).

Considering Claims 14-15: Honnick teaches the basic claimed composition as set forth above.

Honnick does not teach the claimed particle size of sand. However, Ashley et al. teaches silica fillers (6:35-45) wherein the particles may be a mixture of two or more sets of particles with two widely differing mean particle sizes such that particles of one or more set can fit in the interstices of those of the others within the matrix (7:5-10). Honnick and Ashley are analogous art because they are from the same field of

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endeavor, namely silica fillers. At the time of the invention a person of ordinary skill in the art would have found it obvious to have used a multimodal particle distribution, as taught by Ashley, in the invention of Honnick, in order to achieve high filler loadings (7:5-10 of Ashley). With regard to the particular claimed particle size(s) and ranges of the multimodal distribution, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. MPEP 2144.05. As taught by Ashley, multimodal distributions are used to fill interstitial space between fillers and achieve a higher loading (7:5-10). It then flows naturally that there must be a higher percentage of the larger filler with a lower percentage of the smaller filler(s), such that the interstitial spaces are filled.

Claim 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Honnick (US 6,669,835), as applied to claims 1 and 4 as set forth above, and further in view of Caldwell et al. (US 6,316,535).

Considering Claim 8: Honnick teaches the basic claimed composition as set forth above.

Honnick does not teach the powder phase comprising one or more amines. However, Caldwell et al. teaches that long chain tertiary amines may be used as a catalyst as an alternative to dibutyltinlaurate or zinc octoate (3:5-10). Honnick and Caldwell are analogous art because they are from the same field of endeavor, namely polyurethane coatings. At the time of the invention a person of ordinary skill in the art



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would have found it obvious to have used a tertiary amine, as taught by Caldwell, in the invention of Honnick, as an equivalent alternative catalyst.

Claim 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Honnick (US 6,669,835), as applied to claim 1 above.

Considering Claim 16: Honnick teaches the basic claimed composition as set forth above.

Honnick does not teach the claimed amount of catalyst in the powder phase. However, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. MPEP 2144.05. The amount of catalyst directly affects the curing speed of the coating. Consequently, it would be obvious to optimize.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NOAH FRANK whose telephone number is (571)270-3667. The examiner can normally be reached on M-F 9-5 EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/  
Supervisory Patent Examiner, Art Unit 1796

NF  
4-20-09